THE DER WEEKLY

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Industry News

DG Market Analysis System Introduced by Jackson Associates

Jackson Associates, an energy industry consulting company, has introduced the DG Market Analysis System (DG-MAS). This product is a database, software and analysis system that provides detailed energy use, economic, technology, and market analysis for distributed generation technologies including engines, turbines, microturbines, fuel cells, and other DG technologies for residential and commercial markets. When DG-MAS is used with Jackson's Energy-ID™ product, it can generate customer names, addresses, and other contact information. DG-MAS uses MAISY Utility Customer Databases that provide detailed information on individual customers, allow real building analysis, and evaluate and forecast DG choices for each of the customers in the databases. DG-MAS has been applied in studies and market evaluations of new technologies for the U.S. Department of Energy, Office of Management and Budget, Environmental Protection Agency, Oak Ridge National Laboratory, National Renewable Energy Laboratory, state agencies, and electric utilities. *PowerMarketers.com*, May 8, 2001

Distributed Superconducting Magnetic Energy Storage Units Ordered by Entergy

American Superconductor Corporation and GE Industrial Systems announced on May 7 that Entergy Corporation has ordered two additional distributed superconducting magnetic energy storage (D-SMES) units that the companies jointly develop. Entergy plans to use the units to assure power reliability in the Houston, Texas, area for the summer of 2002 and is already in the process of installing two D-SMES systems near Houston to assure power reliability for this summer. *American Superconductor Corporation Press Release*, May 7, 2001

D-SMES Trailer

In This Issue:

SatCon Technology and Beacon Power Developing 250 kW UPS

SatCon Technology Corporation and Beacon Power Corporation have announced that the companies are jointly developing a 250kW uninterruptible power supply (UPS). They expect the product to be available towards the end of 2001. The 250 kW UPS will include a Beacon steel flywheel; SatCon's power conversion electronics, controls, and grid interface; and a commercially available diesel, natural gas, or dual fuel generator. The UPS is designed to be synchronized and conditioned to provide a seamless transition between power from the electric grid and onsite power generation. When electricity from the grid is interrupted, the flywheel will provide power for several seconds until the generator is automatically started. *SatCon Press Release*, May 8, 2001

Wind Farm Proposed for Blackfeet Indian Reservation in Montana

A wind power generation facility has been proposed for the Blackfeet Indian Reservation in Glacier County, Montana. The facility would include a 36 to 66 MW wind farm (power generation for up to 22,000 homes) and would be located on 150 acres of land in northwest Montana. Blackfeet I, LLC, will construct and operate the facility. If approved, the project could be in operation by late 2002. BPA is also planning a 150 MW wind facility, the Maiden Wind Farm, to be constructed in Washington in the Columbia River Basin. *Bonneville Power Administration Press Releases*, May 4 and 7, 2001, Photo: *www.ceinst.org/Blackfeet.htm*.

Blackfeet Indian Reservation

LAX to Convert Food Waste into Power

The Los Angeles International Airport and the City of Los Angeles Department of Public Works have begun a joint pilot program to recycle discarded food from the airport and convert it into electricity that will be fed to the local power grid. If successful, the project will reduce the need for new landfills, diverting nearly 8,000 tons of discarded food from the sites. Leftover food is transported from the airport each day and

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According to a survey conducted by RKS Research & Consulting for Standard & Poor's, many state public utility regulators are uneasy about restructuring. *

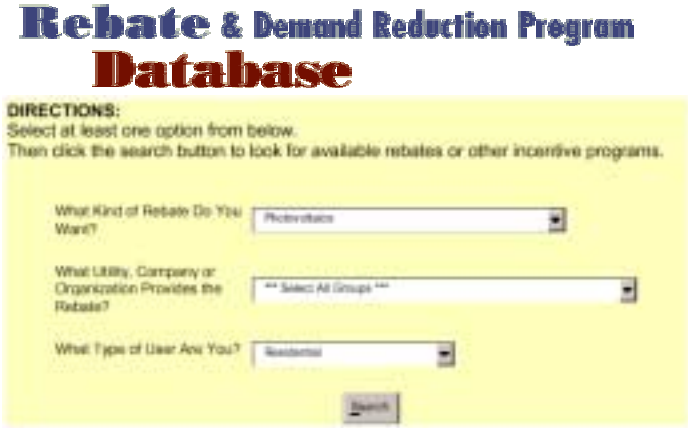
California "Flex Your Power" Program Offers DER Rebates Online

The California Energy Commission's (CEC) "Flex Your Power" program has set up an online database that allows residential, commercial, and industrial customers (and others) to search for available rebates for distributed energy resources and other products that may help improve efficiency and conservation.

The database was made available after the enactment of the Energy Efficiency and Demand Reduction Program in California on April 10, 2001. The law makes hundreds of millions of dollars available through utility companies and state agencies to help reduce electricity use.

The Rebate & Demand Reduction Program Database allows consumers to search for rebates by product type (e.g., engines, photovoltaics, renewables), user type (residential, commercial/industrial), and provider type (utility, company, organization providing rebate). Once the consumer selects the search criteria, the database provides information about the utility or organization providing the rebate, eligibility criteria, name of the program, type of rebate, description of program, amount funded, and a Web site address to obtain further information.

The online rebate database is part of the Consumer Energy Center and "Flex Your Power" program, and can be found at www.flexyourpower.ca.gov/rebates.



taken to Hyperion Treatment Plant, where it is ground up, mixed with water, and used in a digestor that heats the mixture to 131 degrees Fahrenheit, converting the matter into methane gas and carbon dioxide. The methane gas is then piped off-site to a power generation plant to generate steam for electricity production. The residual biosolids are concentrated and recycled to enrich soil, and the excess water is treated and used for irrigation of public property. *Los Angeles World Airports Press Release*, May 7, 2001

GE Power Systems Awarded $85 Million Contract from Erga

GE Power Systems has been awarded a contract worth approximately $85 million from Erga, the renewable energy generating subsidiary of Italy's Enel, to provide power generation for a geothermal project in Tuscany. GE Power System's Nuovo Pignone unit, based in Florence, Italy, will provide Erga with equipment and rotating machinery, including steam turbines and centrifugal compressors. The facility is expected to be operational by mid-2002 and will provide approximately 200 MW of generating capacity. *Businesswire*, May 8, 2001, and *Electricity Daily*, May 10, 2001

New Agreement Makes Power Team the Largest Wind Marketer East of the Mississippi

Exelon Power Team signed a 20-year agreement with Waymart Wind Farm, LLC to purchase the output of a 50 MW wind farm located on Moosic Mountain near Scranton, Pennsylvania. The facility will include about 40 wind turbines that will each generate approximately 1.3 MW of electricity. Earlier this year, Power Team signed agreements with Somerset Wind Farm to purchase 9 MW of output and Mill Run Wind Farm to purchase 15 MW of power. The agreement with Moosic Mountain brings the company's wind portfolio up to 74 MW, making it the largest wind marketer east of the Mississippi River. *Exelon Power Team Press Release*, May 9, 2001

In-ground Heat Exchanger Being Developed for Residential Geothermal Heat Pumps

The Energy Recycling Group of New York City is developing the Geo Column, an in-ground heat exchanger invented by engineer John Genung, a retiree from the Tennessee Valley Authority. The technology is a polymer cylinder filled with a water-antifreeze solution that fits into a 2-foot-diameter, 20-foot-deep hole. Two of the Geo Columns would provide enough heating and cooling for the average home. A unit is being tested in a home in Asheville, North Carolina, and researchers expect the system's costs to be comparable to a high-efficiency heat pump. *Popular Science*, March 2001

H Power Fuel Cells to be Marketed in CA

H Power Corporation has announced a joint project with Energy Co-Opportunity, Inc., to market residential fuel cell systems to the California market. H Power expects to begin manufacturing and shipping the units on a limited basis within the next few months. Altair Energy LLC, a distributed generation service company, has been named as the non-exclusive distributor of the fuel cells for the Southern California market and will sell, install, and service the units. *Businesswire*, May 10, 2001

40 Percent of utility regulators surveyed said they believe they lack the power and resources needed to prevent a situation similar to California's in their own state.*

DOE News

DER Participation in Second International CHP Symposium

The Second International Combined Heat and Power Symposium, sponsored by the International Cogeneration Alliance, the U.S. Department of Energy, and U.S. Environmental Protection agency, was held in Amsterdam, The Netherlands, on May 9 to 10. Merrill Smith, Office of Distributed Energy Resources, participated on the program committee and gave a presentation on U.S. Department of Energy perspectives on distributed energy resources and combined heat and power, discussing example technologies, program activities and accomplishments, market and institutional barriers, and CHP partnerships.

AS Nominee David Garman Discusses Renewables During Confirmation Hearing

On May 9, David Garman attended his confirmation hearing for the position of Assistant Secretary for Energy Efficiency and Renewable Energy held by the Senate Committee on Energy and Natural Resources. Mr. Garman said during his statement that he "intends to push energy efficiency and renewable energy as part of a balanced approach to managing supply and demand equities." During the hearing Senator Larry Craig (R-ID) asked what part renewable energy will play in the nation's focus on increasing traditional energy supplies. Mr. Garman responded by saying that renewable energy will become a more significant source of electric production and mentioned that wind energy capacity is expected to double within the next few years. Also in attendance at this hearing were Francis S. Blake, nominated for Deputy Secretary of Energy; Robert Gordon Card, nominated for Under Secretary of Energy; and Bruce Marshall Carnes, nominated for Chief Financial Officer, Department of Energy.

Energy Storage Conference Offers Solutions for Transmission Constraints

The annual meeting of the Electricity Storage Association (ESA) held April 26-27, 2001, in Chattanooga, Tennessee, focused on the use of energy storage for mitigation of transmission congestion. Large multi-megawatt storage facilities were reported for a number of different advanced technologies, which can contribute significantly to the alleviation of transmission bottlenecks. Projects discussed during the meeting included a 124 MWh sodium-sulfur battery in Japan, a 120 MWh regenesys flow battery under construction in England, and the use of superconducting magnetic energy storage units to stabilize a transmission loop in Wisconsin. Keynote addresses were presented by Mike Gent, president of the North American Reliability Council and Robert Shainker of the Electric Power Research Institute. A visit to the Tennessee Valley Authority's (TVA) Raccoon Mountain pumped storage facility, the largest in the world (1200 MW), was scheduled as part of the conference. In a separate meeting, Dr. Imre Gyuk met with Terry Boston, TVA's Executive Vice President for transmission, Robert Shainker, and Mike Gent to discuss DOE's role in the 20 MW regenesys battery TVA is planning in Mississippi.

Regional Office News

Virginia Alliance for Solar Electricity Makes Progress in Commercializing PV Modules

After a prolonged delay due to the acquisition of Solarex by BP Solar, the Virginia Alliance for Solar Electricity (VASE) project is off and running again. The Toano, Virginia, project leaders plan to install 1.2 MW of Solarex amorphous silicon modules on buildings in the eastern U.S. The largest proposed installation is a 300 kW system for the Paulsboro terminal, an environmental remediation site that BP manages in southern New Jersey. The project is subject to availability of VASE funding, as well as a rebate from the NJ Renewable Energy Fund. In addition, the Tennessee Valley Authority is installing 11 or 12 of these systems as part of their green power program, including 16.4 kW at the Dollywood amusement park. (More information on TVA's projects can be found at www.tva.gov/greenpowerswitch/solar.htm.) The VASE project is funded by the Office of Power Technologies' Commercialization Ventures Program, and managed by the Denver Regional Office. With the Department of Energy's subsidization, the modules will be installed at a reduced rate.

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By the Numbers

Average spot prices for natural gas at the Henry Hub during 2000 (in dollars, per million Btu):

2.28	January 14
3.05	April 14
4.46	End of May
4.63	November 4
6.00	Mid-November
10.00	End of December

Over 12 months, the average spot price for natural gas at the Henry Hub *quadrupled.*

Source: "The Gas-Fired Future: Boom or Bust?" *Public Utilities Fortnightly,* April 1, 2001.

CRO Participates in DER Workshop

The DER program has undertaken an effort to provide information to the Ohio PUC on the opportunities and issues related to the development of an infrastructure to support distributed energy applications in the state. A presentation organized by A.D. Little for the DOE Distributed Energy Resources team was held on May 7 at the PUC offices in Columbus, OH. Peter Dreyfuss, the Chicago Regional Office director attended the workshop. Staff from the Ohio Energy Office as well as a number of distributed energy businesses had representatives at the meeting.

Environmental News

Revegetation Project Initiated in PA

In partnership with the U.S. Department of Energy, Department of Interior, and local agencies and organizations, Allegheny Energy is taking on the Limestone Run Revegetation Project to demonstrate the technical and economic feasibility of revegetating strip-mined land for carbon sequestration, water quality enhancement, and environmental stewardship value. The project will take place at a site between Cowansville and Adrian, Pennsylvania, and will include planting more than 7,000 pine seedlings and two acres of warm season, native grasses on a 20 acre former strip mine. Allegheny will mix fly ash from Armstrong Power Station with revegetated soil to measure its effectiveness in stimulating plant growth. *Allegheny Energy Press Release*, May 7, 2001

Entergy Corporation Limits Emissions

Entergy Corporation has announced plans to hold domestic greenhouse gas emissions at the company's year 2000 levels through 2005, while increasing power production from its fossil fuel plants. Entergy is developing a long-term target, creating a $25 million environmental fund, and working with Environmental Defense (a non-profit green group) to implement its plan. Entergy, along with DuPont, Alcan, Shell International, and Suncor Energy, has joined an international business group, the Partnership for Climate Action, to try to find market-based mechanisms and other programs to limit emissions. *Associated Press*, May 3, 2001, and *Entergy Corporation Press Release*, May 3, 2001

NY Commits Funds for Geo Heat Pumps

Governor George Pataki announced that New York has committed $250,000 to support the efforts of the Geothermal Heat Pump Consortium in expanding the use of geothermal energy throughout the state. The New York State Energy Research and Development Authority (NYSERDA) is helping schools, health care facilities, churches, and businesses to install geothermal systems. A major installation is underway for the Westchester Country Club in Rye, New York. The geothermal system is part of a $7 million project to reduce energy consumption by 775,000 kWh and save $130,000 annually on energy costs. *Environmental News Network*, May 7, 2001

Policy News

Washington Governor Signs Three Energy Bills

Washington Governor Gary Locke signed three energy bills on May 8, enacting legislation which he said would "promote energy efficiency with the development of renewable and traditional energy sources." The bills included EHB 2247, which directs utilities to provide alternative energy choices for customers and grants tax incentives to aluminum and other industries to encourage construction of onsite generation; HB 1859, which extends tax exemptions for small solar, wind, and fuel cell projects; and SB 6107, which extends for 10 years the current laws for geothermal energy development in Washington State. Governor Locke signed the bills at Millennium Elementary School in Kent, Washington, an environmentally friendly school with a geothermal heat source system and a combined solar and wind energy system. *Office of Governor Gary Locke Press Release*, May 8, 2001

CA Legislature Adjourns Special Session; 200 Energy-Related Bills Die

California lawmakers have adjourned the special session devoted to fixing the energy situation because of state legislature rules. In order to ensure the $13.4 billion bond revenue bill passed by the Senate on May 9 will be enacted 91 days after the Governor signs it, the session had to be gaveled to a close. The abrupt ending of the session will leave about 200 energy-related bills to die, which means that lawmakers will have to restart the process by reintroducing them in a new special session with new bill numbers. According to the Legislative Analyst's Office, it will cost an average of $15,900 per bill (in printing and staff hours) to move new legislation through the process. *Orange County Register*, May 10, 2001

AR Passes Net Metering Bill

On April 30, the Governor of Arkansas signed into law a net metering bill technically referred to as the "Arkansas Renewable Energy Development Act." Under this law any residential or commercial customer of a private or public utility can use solar, wind, hydroelectric, geothermal or biomass resources to generate electricity (including but not limited to the use of fuel cells and microturbines) for respective capacities of up to 25 kW and 100 kW.

Wind Tax Credit Bill Signed by WV Governor

West Virginia Governor Bob Wise signed H.R. 2968 "Clarifying and Specifying the Tax Treatment of Certain Wind Power Projects" on May 2, 2001. The Bill specifies the valuation of wind power turbines and related towers for property tax purposes; specifies the taxable generating capacity of generating units used for the production of electricity by wind for state business and occupation tax purposes; and clarifies and specifies the tax treatment of certain wind power projects. The Bill is attributed in part to the Mid-Atlantic Regional Wind Energy Workshop held in Morgantown, WV on October 24, 2000.

CALENDAR OF EVENTS

Date	Event	Location	Other Information
		MAY 2001	
13-16	Seventh Annual National Clean Cities Conference	Philadelphia, PA	Clean Cities Hotline: 800-224-8437 www.ccities.doe.gov/conference.shtml
14-17	First National Conference on Carbon Sequestration	Washington, DC	confserv@netl.doe.gov; www.netl.doe.gov
16-18	F-Cells Week 2001	Palm Springs, CA	www.iqpc.com; www.f-cellsnetwork.com; 800-882-8684
21-23	Third Annual ICEPAG Conference	Newport Beach, CA	www.parcon.uci.edu/colloquium
22-24	Redefining Deregulation: Expect the Unexpected	Kansas City, MO	www.naesco.org
24-25	Conference on Hybrid Systems	Newport Beach, CA	www.parcon.uci.edu/colloquium
30-31	Fuel Cells Codes & Standards Summit V	College Park, MD	ronald.fiskum@ee.doe.gov
31	Idaho Geothermal Energy Stakeholders Workshop	Boise, ID	www.eren.doe.gov/geopoweringthewest
		JUNE 2001	
3-6	FEMP Energy 2001 Conference	Kansas City, MO	www.energy2001.ee.doe.gov
3-7	WindPower 2001 Conference	Washington, DC	www.awea.org; laura_keelan@awea.org
3-8	7th International Symposium on Solid Oxide Fuel Cells	Tsukuba, Ibaraki, Japan	sofc7@nimc.go.jp (National Institute of Materials and Chemical Research)
4-6	Advanced Technology Program National Institute of Standards and Technology — National Meeting	Baltimore, MD	www.atp.nist.gov/nationalmeeting
4-7	ASME Turbo Expo-Land, Sea, Air	New Orleans, LA	www.asme.org/igti; Debbie Haught is organizing microturbine a panel.
4-7	International Joint Power Generation Conference & Expo	New Orleans, LA	www.asme.org/conf/ijpgc01; Debbie Haught is presenting.
11	Fuel Cell Transportation Technology Summit	San Jose, CA	Sandra Gadzia; gadzia@sae.org
11-13	International Symp. on DG: Power System & Market Aspects	Stockholm, Sweden	www.ekc.kth.se/ees/workshop/DG.htm
13-15	Natural Gas and Power Generation Strategies: Solving the Natural Gas and Energy Crisis	Tucson, AZ	www.intertechusa.com
17-20	11th Canadian Hydrogen Conference: Building the Hydrogen Economy	Victoria, BC, Canada	www.iesvic.uvic.ca/cha (Canadian Hydrogen Association)
18-20	APPA National Conference	Washington, DC	www.appanet.org
21-22	Fundamentals of Energy Management	Memphis, TN	Sponsored by FEMP and Association of Energy Engineers www.aeecenter.org/seminars
26	Congressional Fuel Cell Exposition	Washington, DC	More information will be available at a later date.
27-28	TN Wind Workshop	Knoxville, TN	W. Dwight Bailey 404-562-0564

According to the survey, 7 of 10 regulators in the Northeast favor deregulation, and 6 of 10 regulators in the Midwest favor the regulated monopoly model.*

CALENDAR OF EVENTS

JULY 2001			
9-13	4th International Symposium on New Materials for Electrochemical Syst.	Montreal, Quebec	www.newmaterials.polymtl.ca/eng/congres
10-12	Gas Storage Workshop	Kingston, Ontario	David Quinn; quinn-d@rmc.ca
16-19	2001 National Workshop on State Building Energy Codes	Burlington, VT	www.eren.doe/gov/buildings/codes_standards/buildings/2001natl_workshop.html
24-27	ACEEE Summer Study	Tarrytown, NY	www.aceee.org; Rebecca Lunetta; 302-292-3966
30 - Aug. 1	Green Power Conference	Portland, OR	Tina Kaarsberg, tina.kaarsberg@ee.doe.gov; megan_maguire@nrel.gov
AUGUST 2001			
21-24	International Energy Program Evaluation Conference	Salt Lake City, UT	608-835-6880; marymcc@tds.net
29-30	Integrated Energy Efficiency Conference and Facilities Management and Maintenance Expo	Cleveland, OH	www.aeecenter.org
29-Sep. 3	IEEC Integrated Energy Efficiency Congress	Cleveland, OH	Sponsored in part by FEMP; www.aeecenter.org
SEPTEMBER 2001			
11-13	7th Grove Fuel Cell Symposium	London, UK	www.grovefuelcell.com
17-21	Fifth Biomass Conference of the Americas	Orlando, FL	www.fsec.ucf.edu/bioam; dee_scheaffer@nrel.gov
24-26	Powering the Future -- New Strategies and Solutions for Deploying Distributed Power in the Marketplace	Chicago, IL	www.intertechusa.com
30 – Oct. 5	UPEx'01: The Photovoltaic Experience Conference & Exhibition	Sacramento, CA	Jjudd@ttcorp.com; Hosted by Sacramento Municipal Utility District; includes distributed energy technologies workshop
OCTOBER 2001			
14-17	National Center for Photovoltaics Program Review	Lakewood, CO	barbara_ferris@nrel.gov, 303-275-3781
24-26	World Energy Engineering Congress	Atlanta, GA	www.agcc.org (includes CHP Expo www.aeecenter.org)
24-27	Excellence in Building 2001	Orlando, FL	www.eeba.org/conference

***Source: Electricity Daily, May 8, 2001**